Active Directory Homelab (Windows Server)

Author: Kingsley Otoo

■ Personal Statement

I am an aspiring IT professional with a passion for systems administration, networking, and cybersecurity. This Active Directory Homelab project demonstrates my ability to design, configure, and manage enterprise IT infrastructure in a self-directed environment. Through hands-on experience, I have built a foundation in Windows Server administration, automation, and security best practices, preparing me to contribute effectively in a professional setting.

■ Project Overview

This homelab project documents the design, configuration, and management of an on-premises Active Directory (AD) environment, implemented in a VMware virtualized environment. The project highlights core IT administration skills, automation, and documentation.

■ Key Highlights

- Built a Windows Server 2022 VM and promoted it to a Domain Controller (AD DS).
- Configured DNS and networking for domain services.
- Designed a structured OU hierarchy (IT, HR, Sales).
- Automated user and group creation with PowerShell scripts.
- Applied Group Policy Objects (GPOs) for password complexity and security baselines.
- Exported GPO reports and performed backup operations for disaster recovery.

■ Documentation & Screenshots

The project includes step-by-step screenshots demonstrating the creation of OUs, users, groups, GPOs, and PowerShell validation of configurations. These documents showcase my ability to both execute and document IT administrative tasks clearly.

■ Links

GitHub Repository: https://github.com/Tygun02/ActiveDirectory-Lab-Homelab LinkedIn Profile: https://www.linkedin.com/in/kingsley-otoo-6aabb0273